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IN THE
Supreme Court of the United States

MICROSOFT CORPORATION,
Petitioner,

v.

AT&T CORP.,
Respondent.

On Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

BRIEF OF THE SOFTWARE FREEDOM LAW CENTER AS *AMICUS CURIAE* IN SUPPORT OF PETITIONER

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INTEREST OF THE *AMICUS CURIAE*[1]

Much of the world's most important and most significant software is distributed under terms that give recipients freedom to copy, modify and redistribute the software ("Free and Open Source Software"). One could not send or receive e-mail, surf the World Wide Web, perform a Google search or take advantage of many of the other benefits offered by the Internet without Free and Open Source Software, which also includes the Linux operating system that is today's strongest competitor to Petitioner's Windows operating system. Indeed, this brief was written entirely with Free and Open Source Software word processors, namely OpenOffice, gedit and LaTeX, each of which are not just competitive with non-free software programs like those offered by Petitioner on terms of functionality, but which also provide their users with the freedom to improve the program to fit their needs and desires.

The Software Freedom Law Center ("SFLC") is a not-for-profit legal services organization that provides legal representation and other law-related services to protect and advance Free and Open Source Software. SFLC provides pro bono legal services to non-profit Free and Open Source Software developers and also helps the general public better understand the legal aspects of Free and Open Source Software. SFLC has an interest in this

[1]Pursuant to Supreme Court Rule 37.6, *amicus* states that no counsel for a party authored this brief in whole or in part, and that no person or entity, other than *amicus curiae* and its counsel made a monetary contribution to the preparation or submission of this brief. General consents of the parties to the filing of any and all amici briefs was received by this Court on November 28, 2006, from counsel for the Petitioner and on November 30, 2006, from counsel for the Respondent.

matter because the decision of this Court will have a significant effect on the rights of the Free and Open Source Software developers and users SFLC represents. More specifically, SFLC has an interest in ensuring that limits are maintained on the reach of patent law through Section 271(f) so that Free and Open Source software development is not unreasonably and unnecessarily impeded.

SUMMARY OF ARGUMENT

Software can not be a "component[] of a patented invention" under 35 U.S.C. § 271(f) because software is not patentable subject matter under 35 U.S.C. § 101. As such, the Federal Circuit's holding to the contrary in this case is erroneous and should be reversed.

I. Software Cannot Be A "Component[] Of A Patented Invention" Under § 271(f) Because Software Is Not Patentable Subject Matter Under § 101.

The Court of Appeals for the Federal Circuit in this case resolved the issue of whether software may be a "component" of a patented invention under § 271(f) by relying on its contemporaneous *Eolas* decision, which held that "without question, software code alone qualifies as an invention eligible for patenting [under 35 U.S.C. § 101]," and that "every form of invention eligible for patenting [under 35 U.S.C. § 101] falls within the protection of Section 271(f)." *AT&T Corp. v. Microsoft Corp.*, 414 F.3d 1366, 1369 (Fed. Cir. 2005) (*citing Eolas Techs. Inc. v. Microsoft Corp.*, 399 F.3d 1325 (Fed. Cir. 2005)).

While the Federal Circuit is correct that only subject matter eligible for patenting under § 101 can be captured by § 271(f), the Federal Circuit's holding in *Eolas* that software is patentable subject matter conflicts with long-standing precedents of this Court. As noted in the recent opinion of Justice Breyer dissenting from this Court's decision to dismiss as improvidently granted a patentable subject matter challenge, this Court has not approved of the Federal Circuits Section 101 jurisprudence. *See Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 126 S.Ct.

2921, 2928 (2006) (Breyer, J., *dissenting*) (*discussing* the Federal Circuit's "useful, concrete, and tangible result" test for patentable subject matter and *stating* that "this Court has never made such a statement and, if taken literally, the statement would cover instances where this Court has held the contrary").

To support its holding in *Eolas* that "without question, software code alone qualifies as an invention eligible for patenting," the Federal Circuit relied merely on its own previous decisions. *Eolas*, 399 F.3d at 1339 (*citing In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994) and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999)). *Eolas* and the earlier cases on which it relied completely ignored this Court's precedent (discussed below) that sets out firm limits on patentable subject matter and that - in fact - excludes software from patentable subject matter.

Therefore, since *Eolas* fails to abide by this Court's precedent regarding patentable subject matter, the Federal Circuit's reliance on *Eolas* for the holding in this case that software can be a "component[] of a patented invention" under § 271(f) is legally erroneous and should be reversed.

A. This Court's Precedent Sets Out Limits On Patentable Subject Matter.

Confronted with the rise of new technologies, this Court has addressed the issue of patentable subject matter several times. *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972); *Parker v. Flook*, 437 U.S. 584, 591 (1978); *Diamond v. Chakrabarty*, 447 U.S. 303 (1980); *Diamond v. Diehr*, 450 U.S. 175 (1981). Since before the Civil War, this Court has consistently made it clear that subject matter which

would have the practical effect of preempting laws of nature, abstract ideas or mathematical algorithms is ineligible for patent protection. *O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 113 (1854); *Benson*, 409 U.S. at 71. This age-old and time-tested precedent effectively establishes a penumbra of ineligibility for patent protection to safeguard the fundamental policy that laws of nature, abstract ideas and mathematical algorithms be left unrestrained by patents.

This Court stated in *Flook* that to be eligible for patent protection, "[a] process itself, not merely the mathematical algorithm, must be new and useful." 437 U.S. at 591; *Funk Bros. Seed Co. v. Kalo Co.*, 333 U.S. 127, 130 (1948). This Court further stated in *Flook* that it is "incorrect[to] assume[] that if a process application implements a principle in some specific fashion, it automatically falls within the patentable subject matter of § 101." 437 U.S. at 593. This Court explained that such an assumption is based on an impermissibly narrow interpretation of its precedent, including specifically *Benson*, and is "untenable" because "[i]t would make the determination of patentable subject matter depend simply on the draftsman's art and would ill serve the principles underlying the prohibition against patents for 'ideas' or phenomena of nature." *Id.*

In alignment with *Benson* and *Flook*, this Court's decision in *Diehr* held that structures or processes must, when considered as a whole, perform functions intended to be covered by patent law in order to be eligible for patent protection. 450 U.S. at 192. *Diehr* followed and upheld the core holdings of both *Benson* and *Flook*. *Id.* at 190, 191-193 (*citing Benson* and *Flook* repeatedly and *stating* "[o]ur reasoning in *Flook* is in no way inconsistent with our reasoning here").

Benson, *Flook*, *Diehr* and the other decisions of this

Court regarding patentable subject matter consistently established that the inquiry into whether subject matter is eligible for patenting is one of substance, not form. This Court requires that one look, not simply at the language of the patent claim to see if it recites a structure of multiple steps or components, but also at the practical effect of the claim to see if it in fact covers - or otherwise would restrict the public's access to - a principle, law of nature, abstract idea, mathematical formula, mental process, algorithm or other abstract intellectual concept.

This substantive standard ensures that skilled patent draftsmanship is not capable of overcoming one of the core principles of patent law recognized by this Court for more than 150 years that "[a] principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right." *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1853); *Funk Bros.*, 333 U.S. at 130; *Benson*, 409 U.S. at 67 ("[p]henomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work").

B. The Federal Circuit Has Strayed From This Court's Limits On Patentable Subject Matter.

Many scholars have noted that the creation of the Federal Circuit "did away as a practical matter with Supreme Court jurisdiction in patent cases." Kenneth W. Dam, *The Economic Underpinnings of Patent Law*, 23 J. Legal Stud. 247, 270 (1994). For example, through a series of decisions, the Federal Circuit has abandoned the substantive based standard established by this Court for determining patentable subject matter and replaced it with

a more expansive formalistic approach that looks only to see whether a patent claim contains some structure or has some minimal practical utility. The Federal Circuit's form-over-substance approach has come to include virtually anything within patentable subject matter.

Initially, the Federal Circuit used the opinions of legal commentators to justify straying from *Benson* and *Flook*. *Arrhythmia Research Tech., Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1057 n.4 (1992) ("Although commentators have differed in their interpretations of *Benson, Flook*, and *Diehr*, it appears to be *generally agreed* that these decisions represent *evolving views* of the Court, and that the reasoning in *Diehr* not only elaborated on, but in part superseded, that of *Benson* and *Flook*") (emphasis added) (*citing* R.L. Gable & J.B. Leaheey, *The Strength of Patent Protection for Computer Products*, 17 Rutgers Computer & Tech. L.J. 87 (1991); D. Chisum, *The Patentability of Algorithms*, 47 U. Pitt. L. Rev. 959 (1986)). Evidently, the Federal Circuit felt that "general agreement" amongst legal commentators justified abandoning this Court's precedent. In reaching this conclusion, the Federal Circuit also ignored the *Diehr* Court's statement that its decision there was in accord with *Benson* and *Flook*. *Diehr*, 450 U.S. at 185 - 193.

Also in *Arrhythmia*, the Federal Circuit stated that "claims to a specific process or apparatus... will *generally satisfy* section 101." *Id.* at 1058 (emphasis added). This Court's precedent does not, in fact, support the proposition that any process or apparatus "generally satisfies" the requirements of patentable subject matter. *Diehr*, 450 U.S. at 193 ("[a] mathematical formula as such is not accorded the protection of our patent laws... and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment") (citing *Benson* and *Flook*). The new "general rule"

promulgated in *Arrhythmia* was a major step in the Federal Circuit's departure from this Court's precedent regarding patentable subject matter.

Roughly two years later, the Federal Circuit said that this Court's precedent on patentable subject matter was too unclear to follow. *In re Alappat*, 33 F.3d 1526, 1543 n.19 and n.20 (Fed. Cir. 1994) ("The Supreme Court has not been clear", "The Supreme Court has not set forth, however, any consistent or clear explanation", "the understandable struggle that the [Supreme] Court was having in articulating a rule"). Contrary to the Federal Circuit's characterizations, however, this Court's precedent on patentable subject matter is plainly clear: the analysis is one of substance, not form, and asks whether a patent claim is substantially directed to a law of nature, natural phenomenon, abstract idea or mathematical algorithm.

After disregarding this Court's precedent as "unclear," the Federal Circuit substituted its own formalistic approach, which finds that virtually anything is eligible for patenting. *Id.* at 1542 ("[t]he use of the expansive term 'any' in § 101 represents Congress's intent not to place any restrictions on the subject matter for which a patent may be obtained"). The Federal Circuit's approach conflicts with this Court's precedent. As just one example, it ignores the firm statement in *Diehr* that "[a] mathematical formula does not suddenly become patentable subject matter simply by having the applicant acquiesce to limiting the reach of the patent for the formula to a particular technological use." 450 U.S. at 193.

In support of its holding, the Federal Circuit cited this Court's *Chakrabarty* decision for the proposition that, "Congress intended § 101 to extend to 'anything under the sun that is made by man." *Id.* (citing *Chakrabarty*, 447 U.S. 303, 309). However, the Federal Circuit then went much farther than *Chakrabarty's* holding by saying,

"Thus, it is improper to read into § 101 limitations as to the subject matter that may be patented where the legislative history does not indicate that Congress clearly intended such limitations." *Id.* But such was precisely *not* this Court's holding in *Chakrabarty*. Immediately following the language quoted by the Federal Circuit, this Court continued to say in *Chakrabarty* that, "[t]his is *not* to suggest that § 101 has *no* limits or that it embraces every discovery." 447 U.S. at 309 (emphasis added). In support of that statement, this Court referred to *Flook, Benson, Funk Bros.* and other cases, and not to any legislative history. Thus, this Court's precedent clearly shows that there are indeed limits on patentable subject matter beyond those expressly stated by Congress. The Federal Circuit's ruling to the contrary was error.

Indeed, *Alappat* was a highly divided *en banc* decision, wherein several members of the Federal Circuit recognized that the majority was making a severe judicial error. *Id.* at 1552, 1562 (Archer, C.J., *dissenting*). Chief Judge Archer said, "Losing sight of the forest for the structure of the trees, the majority today holds that any claim reciting a precise arrangement of structure satisfies 35 U.S.C. §101.... [T]he rationale that leads to this conclusion and the majority's holding that Alappat's rasterizer represents the invention of a machine are illogical, inconsistent with precedent and with sound principles of patent law, and will have untold consequences," and that "the majority's test under § 101 that looks simply to whether specific structure is claimed is [] inconsistent with Supreme Court precedent"). *Id.*

Since *Alappat*, the Federal Circuit has continued its expansion of patentable subject matter through the implementation of its formalistic approach. *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368 (Fed. Cir. 1998) (holding that anything with a "practical utility" is

patentable subject matter); *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999). The effect of this expansion has been to eliminate the *Benson-Flook-Diehr* limitation on patentable subject matter, because any semi-competent patent drafter can easily craft claims that have a "practical utility" while being substantially directed to the use of a law of nature, abstract idea, natural phenomenon or mathematical formula. The Federal Circuit believes such claims are patentable subject matter. This Court's precedent mandates that they are not.

C. Since Software Does Nothing Other Than Execute Mathematical Algorithms, It Is Not Patentable Subject Matter And, Thus, Can Not Be A "Component[] Of A Patented Invention" Under § 271(f).

This Court has repeatedly addressed the issue of whether software is patentable subject matter. First, in *Benson* this Court said:

> The patent sought is on a method of programming a general-purpose digital computer to convert signals from binary-coded decimal form into pure binary form. A procedure for solving a given type of mathematical problem is known as an "algorithm." The procedures set forth in the present claims are of that kind; that is to say, they are a generalized formulation for programs to solve mathematical problems of converting one form of numerical representation to another. From the generic formulation, programs may be developed as specific applications.

409 U.S. at 65. This Court rejected in *Benson* the patentability of a software patent directed to a specific application of a generic formulation because "the mathematical formula involved here has no substantial practical application except in connection with a digital computer." *Id.* at 71. The holding of *Benson* is properly applicable to all software, because a computer program, no matter what its function, is nothing more or less than the representation of an algorithm. It is not conceptually different from a list of steps written down with pencil and paper for execution by a human being. In no uncertain terms, this Court in *Benson* held that software, which contains and upon command executes algorithms that solve mathematical problems through the use of a computer, was not patentable under § 101.

Then, in *Flook*, this Court held that software could not become patentable subject matter simply by adding to the proposed claims some "post-solution activity." 437 U.S. at 590. This Court explained:

> The notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance. A competent draftsman could attach some form of post-solution activity to almost any mathematical formula; the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques. The concept of patentable subject matter under § 101 is not "like a nose of wax which may be turned and twisted in any direction...."

Id. (citing White v. Dunbar, 119 U.S. 47, 51. (1886)) Thus, claims to implement some method or accomplish some process substantially through the use of software, which does nothing more than encode and execute upon command an algorithm to solve a mathematical problem, are no more patentable than direct claims to software that solves such a problem itself.

Further, just as claiming fifty – or even a thousand – laws of nature is no more patentable than claiming a single law of nature, no form of software, regardless of how many algorithms or forumlas it is comprised of, is patentable because it will always be merely and solely made up of mathematical algorithms.

This Court's decision in *Diehr* upheld the holdings in *Benson* and *Flook*, and merely found that the claimed invention in that case was not substantially directed to just software, but instead was - in totality - directed towards an "industrial process for the molding of rubber products," which is undeniably included within the realm of patentable subject matter. 450 U.S. at 191-93. Had the applicant sought to claim the software used in that process by itself, however, this Court would have most assuredly found it to be unpatentable subject matter just as it had in *Benson* and *Flook*.

Thus, this Court's precedent repeatedly sets out that software, which is nothing more than a set of instructions – an algorithm – to be performed by a computer in order to solve some mathematical problem, is subject matter than is not patentable under § 101. In this case, we need not address whether the alleged "component[] of a patented invention" under § 271(f) is substantially software or not, because the parties concede it is software *per se*. As such, since it is not patentable subject matter under § 101, it likewise can not be a "component[] of a patented

invention" under § 271(f) and the Federal Circuit's holding in this case to the contrary was judicial error.

CONCLUSION

For the foregoing reasons, this Court should reverse the Federal Circuit's decision.

Respectfully submitted.

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